GABA, Ye.S., inzh.; KRASNOPOL'SKIY, Ye.A., inzh.; PETRUSHEVSKIY, I.N., inzh.

Some special features of the use of RVA-62 (UBK-3) automatic excitation controllers for synchronous compensators. Energ. i elektrotekh. prom. no.1:53-55 Ja-Mr '65. (MIRA 18:5)

KRASNOPOYASOVSKIY, S.

Kiln drying of seed corn. Muk.-elev.prom. 20 no.10:21-22 O '54.
(MLRA 7:12)

1. Khar'kovskaya kontora Zagotzerno.
(Corn (Maize) --Drying)

KRASNOPOYASOVSKIY,S.

Seed procurement and storage. Muk.-elev.prom. 21 no.4:3-4 Ap '55. (MLRA 8:7)

1. Khar'kovskaya oblastnaya kontora Zagotzerno.
(Seed industry)

KRASNOPOYASOVSKIY,S.

Drying damp grain in "Kuzbass" driers. Muk.-elev.prom.21 no.6:13 Je'55. (MLRA 8:10)

1. Khar'kovskaya kontora Zagotzerno
(Grain--Drying)

USSR / Cultivated Plants. Grains. M-2

Abs Jour: Ref Zhur-Biol., No 6, 1958, 24996

Author : Krasnopoyasovskiy, S. I.
Inst : Not given
Title : Storing Seed Corn

Orig Pub: Kukuruza, 1956, No 6, 7-11

Abstract: No abstract.

Card 1/1

KRASNOPOYASOVSKIY, S.

Conditioning seed corn. Muk.-elev. prom 22 no.8:27-28 Ag '56.
(MLRA 10:8)

1. Khar'kovskaya oblastnaya kontora Zagotzerno.
(Corn (Maize))

KRASNOPOYASVOSKIY, S.; SLAVINSKIY, D., starshiy agronom-entomolog

Using hydrocyanic acid for controlling cereal pests at grain elevators and flour mills of Kharkov Province. Muk.-elev.prom. 26 no.5:21 My '60. (MIRA 14:3)

1. Zamestitel' nachal'nika Khar'kovskogo upravleniya khleboproduktov (for Krasnopoyasovskiy). 2. Khar'kovskoya upravleniye khleboproduktov (for Slavinskiy).

(Hydrocyanic acid) (Grain--Diseases and pests)

KRASNOPOYASOVSKIY, S.

Storing moist earcorn before drying. Muk.-elev. prom. 28 no.8:8-10 Ag '62. (MIRA 17:2)

1. Khar'kovskoye upravleniye proizvodstva i zagotovok sel'skokhozyaystvennykh produktov.

L 33317-66 EWT(1)/FCC GW
ACC NR: AP6011699 SOURCE CODE: UR/0203/66/006/002/0298/0306

59
56
0

AUTHOR: Krasnopol'skiy, V. A.

ORG: Institute of Nuclear Physics, Moscow State University (Institut yadernoy fiziki, Moskovskiy gosudarstavennyy universitet)

TITLE: Ultraviolet spectrum of radiation reflected by the earth's atmosphere and its use to determine the total content and vertical distribution of atmospheric ozone 12

SOURCE: Geomagnetizm i aeronomiya, v. 6, no. 2, 1966, 298-306

TOPIC TAGS: atmospheric ozone, solar radiation, stratosphere, UV spectrum

ABSTRACT: The author uses a two-layer model of the atmosphere to calculate the solar radiation reflected by the earth's atmosphere. The calculation showed that the spectrum of the atmosphere in the region 0.31 — 0.33 μ is determined mainly by tropospheric processes of scattering and reflection from clouds and depends on the total content of ozone. In the wavelength region less than 0.3 μ, all radiation is determined by scattering and ozone absorption in the stratosphere. The dependence of the ultraviolet spectrum of the atmosphere on the characteristics of the ozone layer makes it possible to calculate the total content and vertical distribution of the ozone. The problem of determining the vertical distribution of ozone from the ultraviolet spectrum of atmosphere-scattered radiation is divided into two problems: 1) The derivation of the most accurate and simplest mathematical expression of the albedo of

UDC 551.510.534

Card 1/2

L 33317-66

ACC NR: AP6011699

3

the atmosphere within reasonable limits of an arbitrary vertical distribution of ozone and 2) finding a convenient but accurate inverse solution. An approximate solution of this problem is derived. The method that is described for determining the vertical distribution of ozone makes it possible to sound various layers of the atmosphere by a ray of various wavelengths. A great advantage of the method is its very brief (of the order of seconds) time of measurement. From the results of ultraviolet measurements from artificial earth satellites it is possible to obtain detailed data on local, diurnal, latitudinal, and seasonal variations of the ozone layer. The author thanks A. I. Lebedinskiy for his useful comments and Ye. S. Kuznetsov and T. A. Germogenova for machine computation of the radiative transfer equation. Orig. art. has: 5 figures and 16 formulas.

SUB CODE: 04 / SUBM DATE: 19May65 / OTH REF: 008

Card 2/2

VORONOV, B.G.; GUSEVA, L.M.; KURDYUMOVA, A.M.; KRASNOPROSHIN, V.A.

Spectrum analysis of girth joints in high-alloy steel. Avtom. svar. 17 no.4:94-95 Ap '64 (MIRA 18:1)

KRASNOPROSHINA, A.A.

Transient processes in a choke-coupled magnetic amplifier.
Izv. vys. ucheb. zav.; prib. 8 no.2:20-26 '65.
(MIRA 18:5)

1. Leningradskiy elektrotekhnicheskiy institut imeni Ul'yanova (Lenina). Rekomendovana kafedroy elektrifikatsii i avtomatizatsii promyshlennosti.

FROLOVA, M.A.; DALIN, M.V.; PEREPECHKINA, N.P.; KRASNOPROSHINA, L.I.

Methodology for studying quantitative changes in nucleic acids during the immunization process. Vak. i syv. no.1:230-235 '63. (MIRA 18:8)

1. Institut vaktsin i syvorotok im. Mechnikova i kafedra obshchey biologii 1-go Moskovskogo ordena Lenina meditsinskogo instituta im. I.M.Sechenova.

FROLOVA, M.A.; KLISENKO, G.A.; KRASNOPROSHINA, L.I.

Problem of competative aspects of allergic processes. Biul. eksp. biol. i med. 46 no.11:62-66 N '58. (MIRA 12:1)

1. Iz kafedry mikrobiologii (zav. - prof. M.N. Lebedeva) I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova (dir. - prof. V.V. Kovanov). Predstavlena deystvitel'nym chlenom AMN SSSR P.F. Zdrodovskim.
(ALLERGY, exper.
cattle & horse serum allergy, competitive aspects (Rus))

LYASHENKO, V.A.; KRASNOPROSHINA, L.I.

Changes in wound microbial flora during penicillin therapy.
Antibiotiki 4 no.3:78-80 My-Je '59. (MIRA 12:9)

1. Kafedra mikrobiologii (zav. - prof.M.N.Lebedeva) I Moskovskogo ordena Lenina meditsinskogo instituta.
(PENICILLIN, eff.
on exper. micrococcal wound infect. (Rus))
(MICROCOCCAL INFECTION, exper.
eff. of penicillin on micrococcal wound infect. (Rus))

FROLOVA, M.A.; KRASNOPROSHINA, L.I.; PALIN, M.V. (Moskva)

Change in the quantity of acetylcholine and the activity of cholinesterase in allergic processes running concurrently. Pat. fiziol. i eksp. terap. 4 no.3:72-73 My-Je '60. (MIRA 13:7)

1. Iz kafedry mikrobiologii (zav. - prof. M.N. Lebedeva) I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M.Sechenova.
(ALLERGY) (CHOLINE) (CHOLINESTERASE)

KRASNOPROSHINA, L.I.

Effect of cortisone on the content of nucleic acids in the lymphoid tissue of rabbits immunized with typhoid fever vaccine. Zhur. mikrobiol., epid. i immun. 42 no.1:21-27 Ja '65. (MIRA 18:6)

1. Moskovskiy institut vaktsin i syvorotok im. I.I. Mechnikova.

KOLESOV, A.P., kandidat meditsinskikh nauk (Leningrad, Fontanka, 4, kv. 388); KRASNOROGOV, B.V., dotsent

Results of surgery in pulmonary cancer [with summary in English p.159] Vest.khir. 77 no.7:77-82 Jl '56. (MLRA 9:10)

1. Iz khirurgicheskoy kliniki usovershenstvovaniya vrachey (nach. - prof. P.A.Kupriyanov) Voyenno-meditsinskoy ordena Lenina akademii im. S.M.Kirova.

(LUNGS,NEOPLASMS, surg.
statist.)

KRASNOROGOV, B.V.

KOLESOV, A.P. (Leningrad, D-187, nab. r.Fontanki, d.4, kv.388); KRASNOROGOV, B.V. (Leningrad, Vasil'yevskiy ostrov, 6-ya liniya, d.37, kv.11)

Immediate and lage results of surgery for lung cancer [with summary in English]. Vop.onk. 3 no.4:473-476 '57. (MIRA 10:11)

1. Iz khirurgicheskoy kliniki dlya usovershenstvovaniya vrachey (nach. - deystvitel'nyy chlen AMN SSSR prof. P.A.Kupriyanov) Voyenno-meditsinskoy ordena Lenina akademii im. S.M.Kirova.
(PNEUMONECTOMY, in var.dis.
cancer, results (Rus))

KRASNOROGOV, B.V.; TOLUZAKOV, V.L.

- Diagnostic errors in lung cancer. Vop.onk. 9 no.2:11-16'63.
(MIRA 16:9)

1. Iz khirurgicheskoy kliniki usovershenstvovaniya vrachey no.1.
(nachal'nik - deystvitel'nyy chlen AMN SSSR prof. P.A.Kupriyanov)
Voyenno-meditsinskoy ordena Lenina Akademii imeni S.M. Kirova.
(LUNGS--CANCER)

KRASNORUTSKIY, I.

Remember the instructor. Voen. znan. 40 no.2:22 F '64. (MIRA 17:2)

1. [illegible]amestitel' predsedatelya respublikanskogo komiteta Dobrovol'nogo obshchestva sodeystviya armii, aviatsii i flotu Bashkirskoy ASSR, Ufa.

ACC NR: AP7004791 SOURCE CODE: UR/0413/67/000/001/0126/0126

INVENTOR: Ashikhmin, V. P.; Krasnorutskiy, V. S.

ORG: none

TITLE: Alloy for brazing magnesium and its alloys. Class 49, No. 190180 [announced by the Physicotechnical Institute, AN UkrSSR (Fizikotekhnicheskiy institut AN UkrSSR)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1967, 126

TOPIC TAGS: brazing alloy, cadmium, ~~zinc~~ CONTAINING alloy, magnesium containing alloy, ZINC CONTAINING ALLOY, MAGNESIUM, MAGNESIUM ALLOY

ABSTRACT: This Author Certificate introduces an alloy for brazing magnesium and its alloys which contains 30—38% cadmium, 30% zinc and 32—40% magnesium to improve the strength of the brazed joint and reduce the alloy melting point. [AZ]

SUB CODE: 11, 13/ SUBM DATE: none/ ATD PRESS: 5116

Card 1/1 UDC: 621.791.35

L 21727-66 EWT(m)/T/EWP(t) IJP(c) JD/JG/JH

ACC NR: AP6008062 (N) SOURCE CODE: UR/0032/66/032/002/0161/0164

AUTHOR: Yerko, V. F.; Krasnorutskiy, V. S.

ORG: Physicotechnical Institute, Academy of Sciences UkrSSR (Fiziko-tekhnicheskiy institut Akademii nauk UkrSSR)

TITLE: Use of localized spectral analysis for studying diffusion of beryllium into magnesium

SOURCE: Zavodskaya laboratoriya, v. 32, no. 2, 1966, 161-164

TOPIC TAGS: spectrum analysis, microchemical analysis, beryllium, magnesium, metal diffusion

ABSTRACT: The authors use the methods of localized spectral analysis (line source, laminar analysis) to determine the coefficients of diffusion of beryllium in magnesium in the 500-600°C range. The excitation source was a rectified hf discharge spark from a PS-39 generator. The spectra were taken on an ISP-28 quartz spectrograph. Optimum polarity conditions are achieved by using the specimen as the cathode in the line source method. The concentration sensitivity for determination of beryllium in magnesium under these conditions is $4 \cdot 10^{-3}$% for a material consumption of $6 \cdot 10^{-5}$ g. The line source results were checked by using the laminar analysis method with the specimen connected as the anode. This method also gives a sensitivity for beryllium

UDC: 543.42

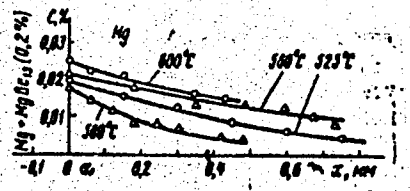
Card 1/2

L 21727-66

ACC NR: AP6008062

0

determination of $4 \cdot 10^{-3}$%. The experimental data were used for plotting concentration curves for the distribution of beryllium in magnesium at diffusion annealing temperatures of 500, 525, 560 and 600°C. These diffusion curves were used for calculating the coefficients of diffusion of beryllium in magnesium, plotting the temperature relationship for the coefficients of diffusion, calculating the activation energy for diffusion process in magnesium-beryllium alloys and evaluating the solubility of beryllium in magnesium in the 500-600°C temperature range. A comparison of the numerical results for the coefficients of diffusion calculated by the line source method and by the laminar analysis method showed a divergence of less than 8-10%. Orig. art. has: 4 figures.



Curves for diffusion distribution of beryllium concentration in magnesium for various annealing temperatures.

SUB CODE: 20/ SUBM DATE: 00/ ORIG REF: 008/ OTH REF: 003

Card 2/2 dda

L 09014-67 EWT(m)/EWP(t)/ETI IJP(c) JD/JG/JH
ACC NR: AP6027793 (N) SOURCE CODE: UR/0126/66/022/001/0112/0114

AUTHOR: Yerko, V. F.; Zolenskiy, V. F.; Krasnorutskiy, V. S.

ORG: Physico-Technical Institute, AN UkrSSR, Khar'kov (Fiziko-tekhnicheskiy institut AN UkrSSR)

TITLE: Diffusion of beryllium in magnesium

SOURCE: Fizika metallov i metallovedeniye, v. 22, no. 1, 1966, 112-114

TOPIC TAGS: metal diffusion, beryllium, magnesium, pressure effect

ABSTRACT: A Mg-Be alloy containing 0.2% Be was produced by simultaneous deep-vacuum evaporation and condensation of Mg and Be on a single substrate. Metallographically the compound was represented by a solid solution of Be in Mg which included tiny particles of the intermetallic compound $MgBe_{13}$. The resulting alloy was sintered under a pressure of 600 atm at a temperature equal to the temperature of subsequent diffusion annealing. To investigate the effect of hydrostatic pressure on the diffusion of Be in Mg, two lots of specimens were prepared. The first lot was diffusion-annealed at atmospheric pressure in a special steel shell filled with MgO and the second lot was annealed at 600 atm. The distribution of Be in Mg was

Card 1/4 UDC: 539.292.539.219.3

determined by means of local spectral analysis (Fig. 1) (for description of local spectral ana-

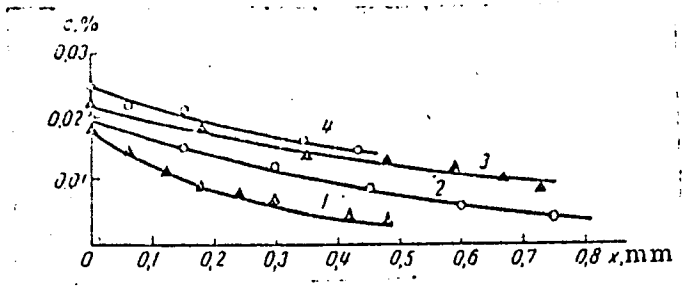


Fig. 1. Curves of the distribution of Be concentration in Mg at temperatures of:

1 - 500°C; 2 - 525°C; 3 - 560°C; 4 - 600°C

lysis cf. Yorko, V. F., Krasnorutskiy, V. S. Zavodskaya laboratoriya, 1966, 22, No 2, 16i). The resulting findings on the solubility of Be in Mg as a function of temperature (Fig. 2) were used to derive the formula for the diffusion coefficient D of Be in Mg:

$$D = 8{,}06 \exp\left(-\frac{37\,490 \pm 2700}{RT}\right).$$

log D

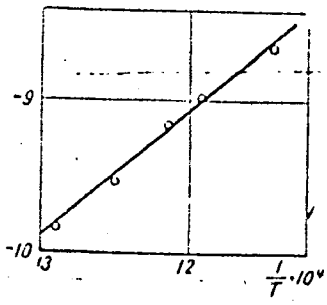


Fig. 2. Temperature dependence of the diffusion coefficient D of Be in Mg

The corresponding values of D are presented in the table below:

Annealing Temperature, °C	Annealing Time, $t\cdot 10^3$ sec	$D\cdot 10^8$ cm^2/sec	
		p = 1 atm	p = 600 atm
600	778 2448	0,22	0,24
565	1181	-	0,1
560	2552,8	0,087	-
550	1890	-	0,066
525	3819,6	0,029	-
500	2246,4	0,014	-

L 09014-67
ACC NR: AP6027793

It is thus seen that increasing the pressure to 600 atm during diffusion annealing does not affect the diffusion rate. These findings should contribute to knowledge of the effect of Be on the high-temperature strength and mechanism of oxidation of Mg-Be alloys. Orig. art. has: 3 figures, 1 table, 4 formulas.

SUB CODE: 11, 20/. SUBM DATE: 02Aug65/ ORIG REF: 003/ OTH REF: 001

Card 3/4

KRASNOSELOV, B. K.

Dissertation: "Investigating the Yields of Products Resulting From the Hydrolysis of Waste Materials From Pine Logging With the Use of Dilute Mineral Acids." Cand Tech Sci, Ural' Forestry Engineering Inst, Sverdlovsk, 1953. Referativnyy Zhurnal--Khimiya, Moscow, No 13, Jul 54.

SO: SUM No. 356, 25 Jan 1955

L 33523-66 EWT(m)/EWP(j)/T RM

ACC NR: AP6012138 (A) SOURCE CODE: UR/0413/66/000/007/0057/0057

23
B

INVENTOR: Krasnoselov, B. K.; Popova, G. I.

ORG: none

TITLE: Preparation of a wood-phenolformaldehyde molding composition. Class 39, No. 180333

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 7, 1966, 57

TOPIC TAGS: ~~molding composition,~~ wood, phenolformaldehyde, ~~molding composition~~ WOOD CHEMICAL PRODUCT

ABSTRACT: An Author Certificate has been issued describing a method of producing a wood-phenolformaldehyde composition by impregnating wood with a solution of phenol, formaldehyde, and acid, condensation with heating, subsequent mixing of the solid moist product with other components of the molding composition, drying, and pulverizing. To take the water-soluble and easily hydrolyzed low-molecular substances out of the composition, thereby increasing the water and heat resistance, the product is treated with a diluted aqueous solution of resin-forming components, and the solid product obtained after condensation is separated from the aqueous stage and washed out. The above solution is used in a seven-to-one ratio with respect to the weight of the perfectly dry wood. [LD]

SUB CODE: 11/ SUBM DATE: 06Sep63

Card 1/1 92 UDC: 679.632.033:547.458.84.002.2

KRASNOSELOV, B.K.; KOZLOV, V.N.

Hydrolysis of detarred chips of rosin extracting plants.
Gidroliz. i lesokhim. prom. 10 no.3:10-11 '57. (MLRA 10:5)

1. Ural'skiy lesotekhnicheskiy institut.
(Wood waste) (Hydrolysis)

KRASNOSELOV, B.K.; KOZLOV, V.N.

Hydrolysis of lumbering wastes by means of diluted sulfuric acid. Sbor.rab.Lab.lesokhim. no.2:83-89 '58. (MIRA 12:8)
(Hydrolysis)

GVOZDETSKIY, L.A., inzh.; GORBANENKO, A.D., kand.tekhn.nauk; KARPOV, V.V., inzh.; KRASNOSELOV, G.K., inzh.; TSIRUL'NIKOV, L.M., inzh.

Burning of Arlan petroleum with increased stabilization in boiler furnaces. Elek. sta. 33 no.10:22-25 O '62. (MIRA 16:1)
(Boilers) (Petroleum as fuel)

GORBANENKO, A.D., kand.tekhn.nauk; TSIRUL'NIKOV, L.M., inzh.; CHUPROV, V.V., inzh.; GVOZDETSKIY, L.A., inzh.; KRASNOSELOV, G.K., inzh.; MYAKOTINA, A.Z., inzh.

Burning of liquid fuels in combustion chamber. Teploenergetika 10 no.4:44-49 Ap '63. (MIRA 16:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy teplotekhnicheskiy institut i Bashkirenergo.
(Boilers) (Furnaces)

GORBANENKO, A.D., kand. tekhn. nauk; TSIRUL'NIKOV, L.M., inzh.; KRASNOSELOV, G.K., inzh.; GELLER, Z.I., doktor tekhn. nauk; LIPINSKIY, F.A., inzh.

Effectiveness of burning mazut. Elek. stat. 35 no.1:66-71 Ja '64. (MIRA 17:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy teplotekhnicheskiy institut im Dzerzhinskogo (for Gorbanenko, TSirul'nikov). 2. Bashkirenergo (for Krasnoselov). 3. Groznenskiy neftyanoy institut (for Geller). 4. Novoufimskaya teploelektrotsentral' (for Lipinskiy).

KRASNOSELOV, G.K., inzh.; MYASNIKOV, V.K., inzh.

Stand measurements of the effectiveness of the introduction of magnesite into the flue gases of a boiler operating on high-sulfur mazut. Elek. sta. 35 no.3:13-15 Mr '64. (MIRA 17:6)

GORBANENKO, A.D., kand. tekhn. nauk; TSIRUL'NIKOV, L.M., inzh.;
KRASNOSELOV, G.K., inzh.

Mechanically caused incomplete combustion of a liquid fuel in furnace combustion chambers. Elek. sta. 35 no.10:10-12 O'64.
(MIRA 17:12)

S/137/62/000/003/031/191
A006/A101

AUTHORS: Lyubimova, I. P., Pershukov, A. A., Krasnoselov, N. L.

TITLE: Dynamics of achieving projected indices of concentrating titanium-magnetite ores at the Kusinskiy concentration plant

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 3, 1962, 9, abstract 3G65 ("Sb. nauchn. tr. Magnitogorskiy gornometallurg. in-t", 1961, no. 24, 105 - 118)

TEXT: The Kusinskiy titanomagnetites represent polymetallic ore and contain Fe, Ti, V and Co. The basic ore minerals are the vanadium containing magnetite and ilmenite. Non-ore minerals forming 20 - 25% of the total ore mass are represented by chlorite, hornblende, actinolite, garnet, epidote. There are compact and disseminated ores. Magnetite is the most widespread ore-forming mineral. The authors describe dynamics of gradual improvement of indices in the operation of the Kusinskiy plant. The system of concentrating titanomagnetites includes dry magnetic separation at 25 - 0 mm ore crushing. Concentration is carried out on mg 8/9 drum separators. From ore, containing Fe 41.3% and Ti oxide 10%, concentrates are then obtained which contain 46.6% Fe and 12.6% Ti oxide at 93% Fe extraction. Wet mag-

Card 1/2

Dynamics of achieving projected indices of...

netic separation is carried out during refining of the collective concentrate to 1.5 - 2% class + 40 mesh. Trommels for collecting the chips are mounted on the overflow of the mill and the rake classifier. Separation is conducted on 3-product СЭ 128 Б (SE 128 B) band separators. Refining of industrial products is intended. Finished Fe-V concentrate and Ti-semiproduct are then obtained. Prior to ilmenite flotation desliming and condensation in hydrocyclones is carried out. For the purpose of obtaining low-sulfur ilmenite concentrate, pyrite flotation is provided for with the use of the following reagents: 200 g/t H_2SO_4; 200 g/t xanthogenate and 40 g/t flotation oil. To reduce hardness of the water soda is added to the pulp. As a result of the thorough control of the reagent conditions and the supply point of the reagents during ilmenite flotation, the advantage of systems with counterflow of the foam over the previous direct-flow system was revealed. The extraction of TiO_2 into the concentrate was raised from 89.5 to 95%. Instead of oleic acid, tall oil mixed with kerosene was used. Weakly acid solutions of H_2SO_4 and Na_2SiF_6 were used as depressors of ore minerals.

A. Shmeleva

[Abstracter's note: Complete translation]

Card 2/2

KOZLOV, M.S.; KRASNOSELOV, N.L.

Present state of the flotation method of concentrating titanium-magnetite ores in ore dressing plants. Titan i ego splavy no.8: 3-7 '62. (MIRA 16:1)

(Titanium ores) (Flotation)

5 (3)

AUTHORS: Nikolayev, A. F., Ushakov, S. N., Krasnosel'skaya, I. G.

SOV/62-59-9-17/40

TITLE: Polymerization and Copolymerization of N-Vinyl Compounds. Communication 5. Polymerization of Vinyl Succinimide

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 9, pp 1627 - 1630 (USSR)

ABSTRACT: The present article describes the polymerization of N-vinyl succinimide (VS), which has not been previously described, and the properties of the polymers obtained are investigated. VS was prepared by a method described by the authors in reference 1, by pyrolysis from β-acetooxyethyl succinimide. The polymerization of VS succeeded only by using peroxide initiators. The polymerization was carried out at 50, 65, and 85° with 0.2% benzoyl peroxide (BP) in solid state and in solution. Figure 1 illustrates the influence of the temperature and figure 2 the influence of the concentration of the initiator on the polymerization rate. At 50° a maximum yield (98%) was obtained during 6 hours. The yield decreased with increasing temperature, but the reaction rate increased. The complete consumption of the monomer ended the polymerization. The polymer obtained is colorless, trans-

Card 1/2

parent, and becomes porous and opaque when larger quantities of BP are used. The polymerization of the solving agents (dichloroethane, benzene, methyl alcohol, and water) rapidly occurred at 85° even in diluted solving agents and the yield was good. (Table 3). As particular properties of the obtained polymers the following 2 have been established: limited solubility in organic solving agents and a low stability in water (Table 3). There are 3 figures, 4 tables, and 5 references, 3 of which are Soviet.

ASSOCIATION: Leningradskiy tekhnologicheskiy institut im. Lensoveta (Leningrad Institute of Technology imeni Lensovet)

SUBMITTED: January 8, 1958

L 44583-66 EWT(m)/EWP(j)/T IJP(c) RM

ACC NR: AP6015672 (A) SOURCE CODE: UR/0413/66/000/009/0076/0076 33 32

INVENTOR: Yerusalimskiy, B. L.; Krasnosel'skaya, I. G. B

ORG: none

TITLE: Method for obtaining polychloroprene. Class 39, No. 181293 [announced by Institute of Micromolecular Compounds AN SSSR (Institut vysokomolekulyarnykh soyedineniy AN SSSR)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 9, 1966, 76

TOPIC TAGS: polychloroprene, chloroprene, polymerization, polymerization catalyst

ABSTRACT: An Author Certificate has been issued for a method of obtaining polychloroprene by polymerization of chloroprene in a medium of inert organic solvent at room temperature in the presence of an organometallic catalyst. To increase the polychloroprene yield, a complex of

Card 1/2 UDC: 678.763.2

L 44583-66

ACC NR: AP6015672 /

lithiumbutyl-lithiumiodide-dibutylmagnesium is used as the organo-metallic catalyst. [Translation] [NT]

SUB CODE: 11/ SUBM DATE: 06Feb65/

Card 2/2 LJM

YERUSALIMSKIY B.L.; KRASNOSEL'SKAYA, I.G.; MAZUREK, V.V.

Polymerization of chloroprene in the presence of organometallic compounds. Part 1:System chloroprene - butyllithium. Vysokom. soed. 6 no.7:1294-1301 Jl '64 (MIRA 18:2)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR.

ACCESSION NR: AP4045430 S/0190/64/006/009/1637/1641

AUTHOR: Krasnosel'skaya, I.G., Yerusalimskiy, B.L.

TITLE: Polymerization of chloroprene under the influence of dibutyl magnesium and butylmagnesium iodide

SOURCE: Vy*sokomolekulyarny*ye soyedineniya, v. 6, no. 9, 1964, 1637-1641

TOPIC TAGS: chloroprene, dibutyl magnesium, butylmagnesium iodide, organomagnesium compound, chain termination, chain propagation, activation, initiator, polymerization catalyst, polychloroprene

ABSTRACT: The kinetics of polymerization of the system chloroprene-dibutyl magnesium-butylmagnesium iodide were investigated by carrying out the polymerization in heptane or a fraction of purified kerosene at a monomer concentration (M) of 2-8 mole/liter and an initiator concentration (C) of 0.01-0.08 mole/liter. Under the given conditions, the polymerization reached an almost constant rate in the initial state to slow down gradually later and to stop completely on disappearance of the polymer. At 40C, (M) = 6 and (C)=0.08 mole/liter, the maximum yield was 55%. The plotter experimental data show that for the

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ACCESSION NR: AP4045430

initial rate of polymerization, calculated from the conversion after the first 40 min., the order of reaction was 0.95 with respect to the initiator and 1.09 with respect to the monomer. After 0.25 min., the reaction mixture contained only 10% of the starting initiator, and in 0.5 min. it completely disappeared. The total content of organomagnesium compounds after 0.25 min. was 92% of the initial. Then, the total concentration of organic magnesium compounds continued to decrease slowly. The decrease in the initiator concentration can be attributed to the parallel reactions of initiation and destruction. The rate constants of the elementary reactions and the activation energies of chain propagation and chain termination were determined and the date are plotted. For chain propagation, the constants were $k_1' = 8.4$ and $k_{3a} = 0.82$ min^{-1}; for chain termination at 40, 50 and 60C the constants were 0.0018, 0.0037 and 0.0087 min^{-1}, respectively. The activation energy of chain termination obtained from these values is 17.9 ± 0.5 kcl/mole. The average viscosimetric molecular weight of polychloroprene calculated from the formula $\mu = 1.55 \times 10^{-4} M^{0.71}$ (in benzene) increased continuously in the initial stage of the polymerization. This confirms the kinetic scheme according to which the chain propagation is a stepwise organometallic synthesis. The results indicate an anionic

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mechanism for the reaction. The resulting polymers lose their solubility in benzene at a certain degree of conversion (during polymerization at 40C, at a polymer yield of about 40%). The microstructure of polychloroprene formed under the influence of organomagnesium compounds practically coincides with the typical structure of polymers obtained by the radical polymerization of chloroprene. "The authors are greatly indebted to A.A. Korotkov for his useful comments. The microstructural data on the polymers were provided by Ye. I. Pokrovskiy and G.V. Lyubimova." Orig. art. has: 6 formulas, 5 figures and 1 table.

ASSOCIATION: Institut vy*sokomolekulyarny*kh soyedineniy AN SSSR (Institute of High-Molecular Compounds, AN SSSR)

SUBMITTED: 26Oct63 ENCL: 00 SUB CODE: OC

NO REF SOV: 004 OTHER: 002

Card 3/3

SHEYN, S.M.; KRASNOSEL'SKAYA, M.I.

Synthesis of 4-substituted 1,3-bis-(trifluoromethylsulfonyl)-benzenes. Zhur.VKHO 10 no.5:592 '65.

(MIRA 18:11)

1. Novosibirskiy institut organicheskoy khimii Sibirskogo otdeleniya AN SSSR, i Rubezhanskiy filial Nauchno-issledovatel'skogo instituta organicheskikh poluproduktov i krasiteley.

SHEYN, S.M.; KRASNOSEL'SKAYA, M.I.

Nucleophilic substitution in the aromatic series. Part 6: Mechanism of interaction of 2-chloro-1,4-bis(trifluoromethyl)benzene with alcoholates in alcohol medium. Zhur. ob. khim. 34 no.10:3385-3389 O '64. (MIRA 17:11)

1. Nauchno-issledovatel'skiy institut organicheskikh poluproduktov i krasiteley, filial v g. Rubezhnoye.

YAGUPOL'SKIY, L.M.; SHEYN, S.M.; KRASNOSEL'SKAYA, M.I.; SOLODUBENKOV, S.M.

New method for the preparation of 2-amino-4-trifluoromethylbenzoic acid. Zhur. ob. khim. 35 no.7:1261-1263 Jl '65.
(MIRA 18:8)

AKHMEDZADE, D.A.; YASNOPOL'SKIY, V.D.; KERIMOVA, M.M.; KRASNOSEL'SKAYA, Ye.A.

Nitrosation of methylcyclohexane and cyclohexanecarboxylic acid. Zhur.prikl.khim. 37 no. 1:228-229 Ja '64. (MIRA 17:2)

USOVSKIY, B.N.; GEMINOVA, N.V.; KRASNOSEL'SKAYA, T.A.[deceased]; LEPESHIN-SKAYA, Ye.V., redaktor; TUMARKINA, N.A., tekhnicheskiy redaktor

[English-Russian agricultural dictionary] Anglo-russkii sel'skokhoziaistvennyi slovar'. Izd. 3-e, perer. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1956. 532 p. (MLRA 9:8)
(English language--Dictionaries--Russian)
(Agriculture--Dictionaries)

YASNOPOL'SKIY, V.D.; KRASNOSEL'SKAYA, Ye.A.

Reactions of aromatic diamines with urea and its thioderivatives.
Vysokom. soed. 2 no. 3:441-443 Mr '60. (MIRA 13:11)

1. Institut neftekhimicheskikh protsessov AN AzerSSR.
(Amines) (Urea)

HUTTMANN, A.,; RADULET, Fl.,; PASZTOR, P.,; TAFFET, E.,; CIRSTOCEA, I.,; STEFANESCU, C.R.,; COJOCARU, L,; KRASNOSELSKI, K.

Study of cervical disk hernia. Probl. reumat., Bucur. Vol. II.: 137-150 1954

(INTERVERTEBRAL DISK DISPLACEMENT
cervical)

BOGOMOLOVA, S.N.; VAYTKUNENE, L.I.; KRASNOSEL'SKIKH, A.A.; NIKIFOROVA, O.I.

Development of imagination in law students during the practical study of criminology. Vop.psikhol. no.6:117-123 N-D '62. (MIRA 16:2)

1. Moskovskiy gosudarstvennyy universitet.
(Criminal investigation--Study and teaching)

KRASNOSEL'SKIKH, I.T., inzh.

Twenty fifth anniversary of the Ural Machinery Plant. Izobr.i rats. no.7:30-33 Jl '58. (MIRA 11:9)
(Ural Mountain region--Machinery industry)

KRASNOSEL'SKIKH, N.

Improve the record of students' production practice. Sots. trud. no.8:138-140 Ag '58. (MIRA 11:9)

1.Nachal'nik otdela tekhnicheskogo obucheniya Uralmashzavoda.
(Student employment)

14(2), 18(3)

AUTHOR: Krasnosel'skikh, N., Engineer at Uralmash

SOV/29-58-11-13/28

TITLE: The Plant of Plants (Zavod zavodov)

PERIODICAL: Tekhnika molodezhi, 1958, Nr 11, pp 18 - 19 (USSR)

ABSTRACT: In this article the author describes the Uralmash plant. Uralmashzavod, which was inaugurated in 1933, is one of the principal suppliers of rolling equipment for numerous metallurgical enterprises. After the war the collective of the plant designed and built a number of bloomings "1150", with a capacity of 3 million tons per annum each. These bloomings do not only operate in the USSR, but were also supplied to Poland, the People's Republic of China, and India. Furthermore, two rail-structural mills, four thin sheet cold-rolling mills, seven tube rolling mills producing seamless tubes, and five tube cold-rolling mills etc. were built. The dredges are a special object of pride of Uralmash. In this year the biggest "striding" dredge is being built, with a shovel capacity of 23 cu.m. and boom of 100 m length.

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It has been computed that dredges built at Uralmashzavod have replaced about 1,5 million excavation workers. Up to 80 per cent of the ores used for iron and non-ferrous metals is worked with machines which bear the factory mark "UZTM". Almost 90 per cent of all oil wells were drilled with equipment produced by Uralmash. About 75 per cent of all cast iron is melted in blast furnaces equipped by Uralmash. Uralmash is a production plant and a technological school at the same time. It houses the vecherniy fakul'tet Ural'skogo politekhnicheskogo instituta (Evening School of the Ural Polytechnical Institute), the Correspondence Course and Information Center of the above Institute, a Mechanical Engineering Institute with Evening and Correspondence Courses, an Information Center of the zaochnyy planovo-ekonomicheskiy institut (Correspondence-Course Institute for Planning and Economy), and a Dom tekhnicheskogo obucheniya (Home for Technical Studies). In the course of 25 years more than 640 persons have graduated from these institutes and acquired the title of engineer, and over 800 persons have obtained technical

diplomas. A few dozens of engineers wrote their dissertations there.

KRASNOSEL'SKIKH, N.

A system of disseminating progressive practice used at the Ural Machinery Plant. Sots. trud 6 no.12:119-123 D '61.
(MIRA 14:11)

1. Nachal'nik otdela tekhnicheskogo obucheniya "Uralmashzavoda".
(Sverdlovsk--Machinery industry workers--Education and training)

KRASNOSEL'SKIKH, N.

Let's inculcate progressive experience into the masses. Prof.-tekh. obr. 18 no.6:31 Je '61. (MIRA 14:7)

1. Nachal'nik otdela tekhnicheskogo obucheniya Uralmashzavoda, Sverdlovsk.

(Evening and continuation schools)

GERKEN, I.V.; KRASNOSEL'SKIKH, N.T., inzhener, redaktor; DUGINA, N.A., tekhnicheskiy redaktor.

[Utilization of gas generator waste tars] Ispol'zovanie otbrosnykh gazogeneratornykh smol. Moskva, Gos.nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1952. 19 p. [Microfilm] (MLRA 9:6)
(Tar) (Gas manufacture and works--By-products)

KRASNOSEL'SKIKH, N.T.

Nauka i proizvodstvo
(Science and industry). Moskva, Mashgiz, 1952.
160 p.

SO: Monthly List of Russian Accessions, Vol. 6, No. 1, April 1953

GRABOVSKIY, L.K., inzh.; BASHILOV, G.N., inzh.; SOKOLOVSKIY, O.P., inzh.; KRASNOSEL'SKIKH, S.N., inzh.; ANTONOV, P.A.; BYKOV, V.A., inzh.; DANILOV, G.G., inzh.; GEL'FENBEYN, Ye.Yu., inzh.; PILIP, M.M., inzh.; MAKAROV, B.V., inzh.; RAGINSKIY, D.M., inzh.

Equipment of a working line of hot rolling mills. Sbor. st. NIITIAZHMASHa Uralmashzavoda no.6:70-96 '65.

(MIRA 18:11)

L 19803-65 EPF(n)-2/EPA(s)-2/EWT(m)/EPF(c)/T/EWP(t)/ETI Pc-4/Pr-4/Pe-4 RPL/ESD(a)/ASD(m)-3/
AFWL/RAM/WH
ACCESSION NR: AP5003613 S/0190/64/006/007/1294/1301

AUTHOR: Yerusalimskiy, B. L.; Krasnoshchekova, I. G.; Mesurek, V. V.

TITLE: Polymerization of chloroprene under the influence of organo-metallic compounds. I. The chloroprene-butyllithium system

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 6, no. 7, 1964, 1294-1301

TOPIC TAGS: polymerization, macromolecular chemistry, organolithium compound, chlorinated organic compound, chemical reaction kinetics

Abstract: Data are cited on the polymerization of chloroprene under the influence of butyllithium; in spite of the low efficiency of the process, the authors note the value of an investigation of this reaction in the light of evaluating the orders of the absolute rate constants of elementary reactions. The polymerization of chloroprene in the presence of butyllithium in hydrocarbon medium was found to be characterized by a vital role of the termination reactions, deactivating the growing chains and preventing the achievement of high degrees of conversion. The kinetic data obtained indicated an anionic mechanism of the process. The study of the reaction kinetics and variation

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L 19803-65
ACCESSION NR: AP5003613

of the concentration of the organometallic compound during polymerization revealed that isomerization takes place in the growing chains, and there are two different chain growth reactions, for which the values of the individual constants were found. The steady increase in the molecular weight of the polymers during the polymerization process showed that it is of the type of consecutive organometallic synthesis. The basic elementary unit in the polychloroprene formed in this system was the trans-1,4-unit. Orig. art. has: 20 forms, and 5 graphs.

ASSOCIATION: Institut vysokomolekulyarnykh soyedineniy AN SSSR (Institute of High-Molecular Compounds, AN SSSR)

SUBMITTED: 13Aug63 ENCL: 00 SUB CODE: OC, GO

NO REF SOV: 006 OTHER: 006 JPRS

Card 2/2

KRASNOSEL'SKIY, E.B.

Determination of the degree of danger of an avalanche in the high mountain regions of the central Tien Shan. Trudy GGO no.150: 133-139 '64. (MIRA 17:7)

KRASNOSEL'SKIY, E.B. (g.Frunze)

Study of avalanches in the central Tien Shan. Meteor. i gidrol. no.9:49-51 S '62. (MIRA 15:8)
(Tien Shan--Avalanches)

MANSIYOV, N.V.; KRASNOSEL'SKIY, E.B.

Experience gained in the prevention of avalanches in high-mountain regions of Tien Shan. Trudy GGO no.160:148-150 '64. (MIRA 17:9)

KRASNOSEL'SKIY, Gleb Iosifovich.

Academic degree of Doctor of Medical Sciences, based on his defense, 15 June 1954, in the Council of Voronezh State Medical Inst, of his dissertation entitled: "Utilizing Artificial Sources of Light in Sports Practice."

Academic degree and/or title: Doctor of Sciences

SO: Decisions of VAK, List no. 12, 28 May 55, Byulleten' MVO SSSR, No. 15, Aug 56, Moscow, pp. 5-24, Uncl. JPRS/NY-537

KRASNOSEL'SKIY, G.I., professor

Chinese breathing exercise. Zdorov'e 3 no.7:18-19 Jl '57. (MLRA 10:8)
(RESPIRATION) (EXERCISE)

KRASNOSEL'SKIY, G.I.

TSYUY MYAN'-YU [Ch'u Mien-yu"]; KRASNOSEL'SKIY, G.I.

Chinese therapeutic exercise. Vop. kur., fizioter. i lech. fiz. kul't. 22 no.1:53-56 Ja-F '57 (MLRA 10:4)

1. Iz Pekinskogo meditsinskogo instituta, Kitay.
(CHINA--EXERCISE THERAPY)

KRASNOSEL'SKIY, G.I., prof.; MURAVOV, I.V., kand.med.nauk

Critical evaluation of idealistic views on the "normal" physical development of man. Nek.filos.vop.med.i est. no.2:395-406 '60. (MIRA 15:7)

1. Kafedra fizicheskogo vospitaniya i lechebnoy fizicheskoy kul'tury Kiyevskogo meditsinskogo instituta.
(MAN—CONSTITUTION) (GROWTH)

KRASNOSEL'SKIY, Gleb Iosifovich, prof.; NEYMAN, M.I., red.; BUL'DYAYEV, N.A., tekhn. red.

[Chinese health gymnastics for elderly persons] Kitaiskaia gigienicheskaia gimnastika dlia lits pozhilogo vozrasta. Izd.2., ispr. i dop. Moskva, Gos. izd-vo med. lit-ry Medgiz, 1961. 28 p. (MIRA 14:7)

(CHINA—EXERCISE THERAPY)
(AGED—CARE AND HYGIENE)

KRASNOSEL'SKIY, L.I., podpolkovnik meditsinskoy sluzhby

Some problems in supplying battle stations of ships with medical equipment. Voen.med.zhur. no.3:22-24 '59.
(MIRA 12:6)

(MEDICINE, MILITARY AND NAVAL
ship battle stations, med. equipment supply
(Rus))

L 62856-65

ACCESSION NR: AP5019040 UR/0286/65/000/012/0070/0070
624.023.87 691.12

AUTHOR: Krasnoselskiy, L. N.; Zhurov, T. I.; Kolesayev, A. V.; Krotovskiy, S. G.; Myasnikov, B. N.

TITLE: A construction unit. Class 37, No. 172028

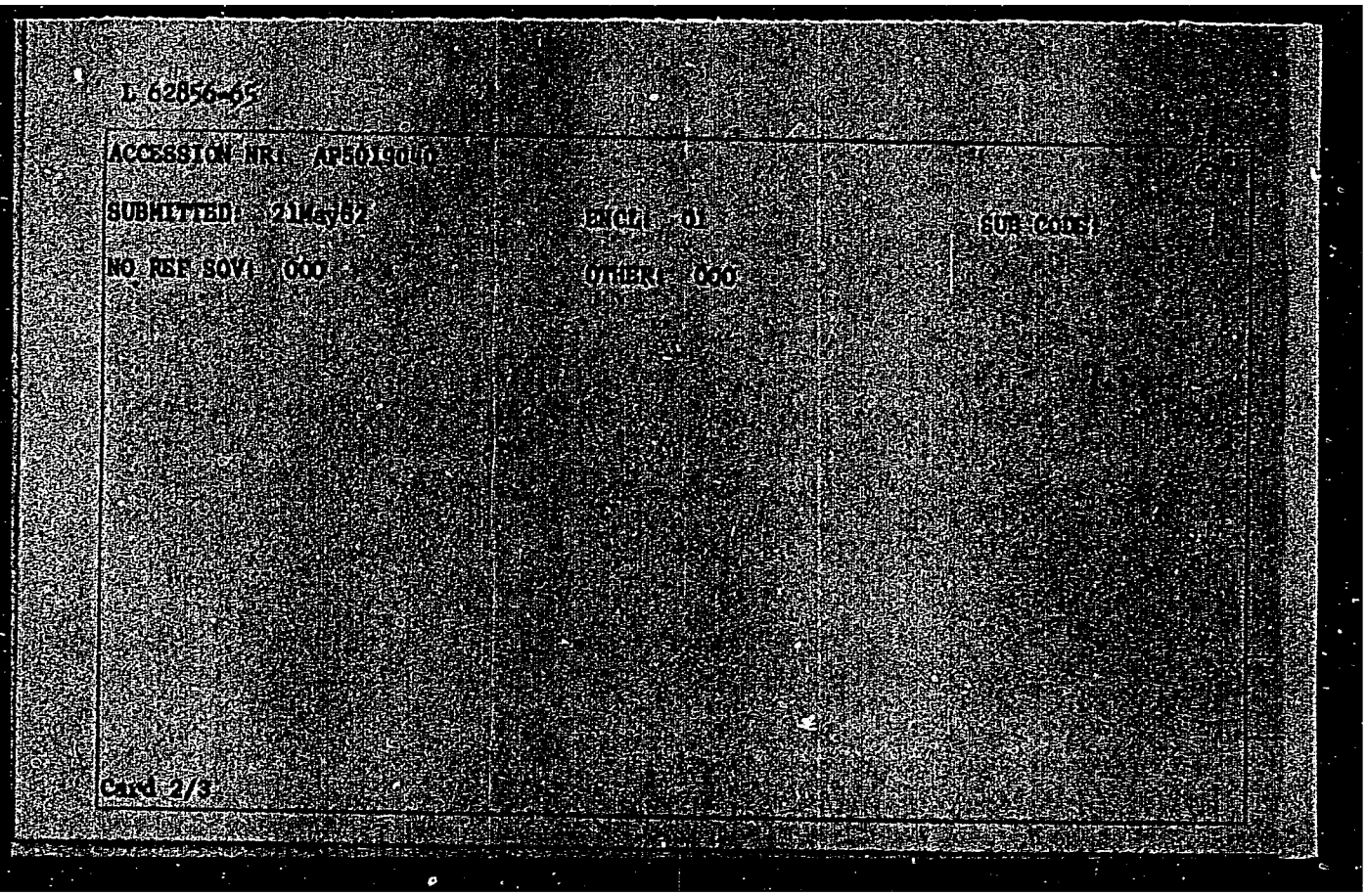
SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 12, 1965, 70

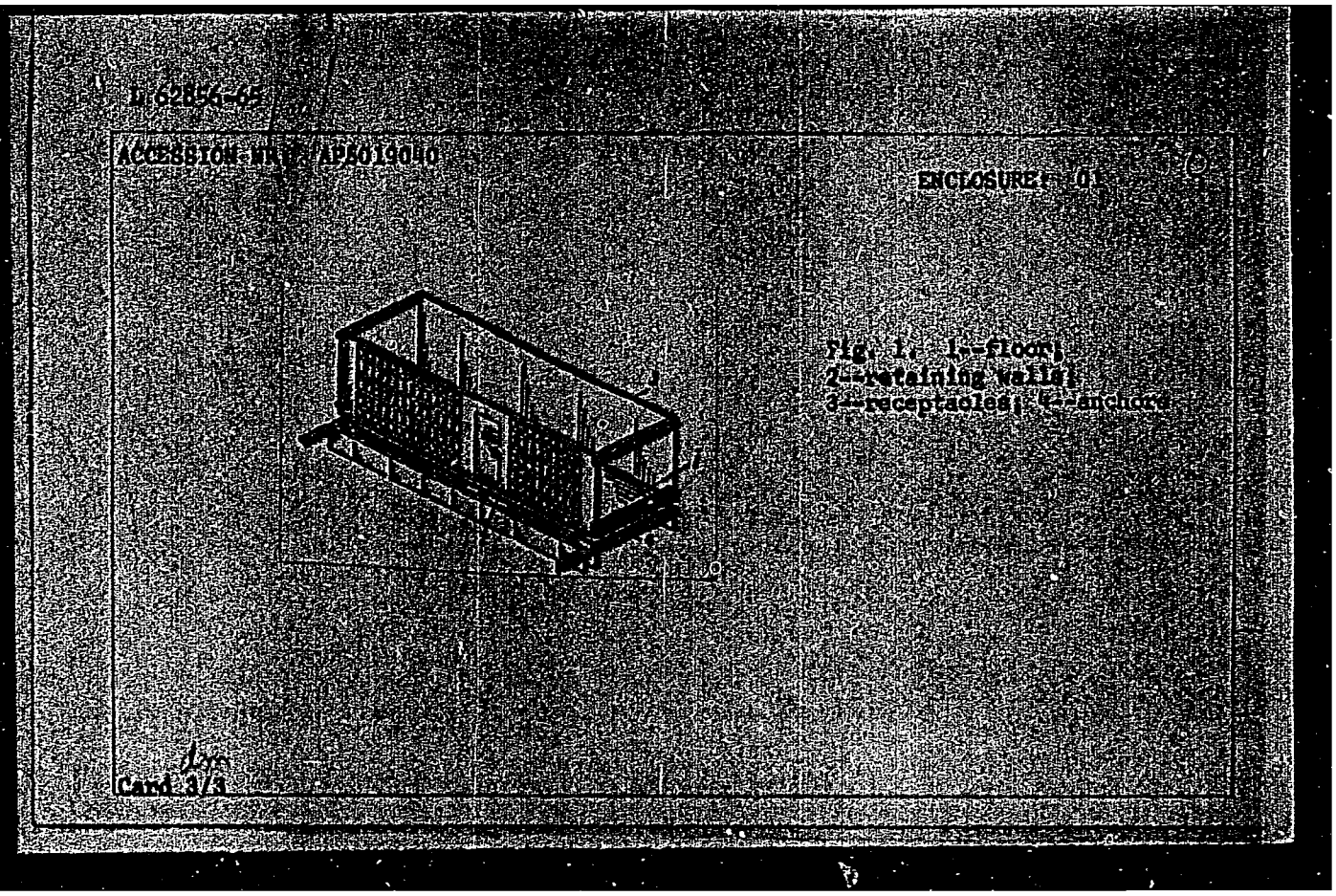
TOPIC TAGS: structural element, construction method

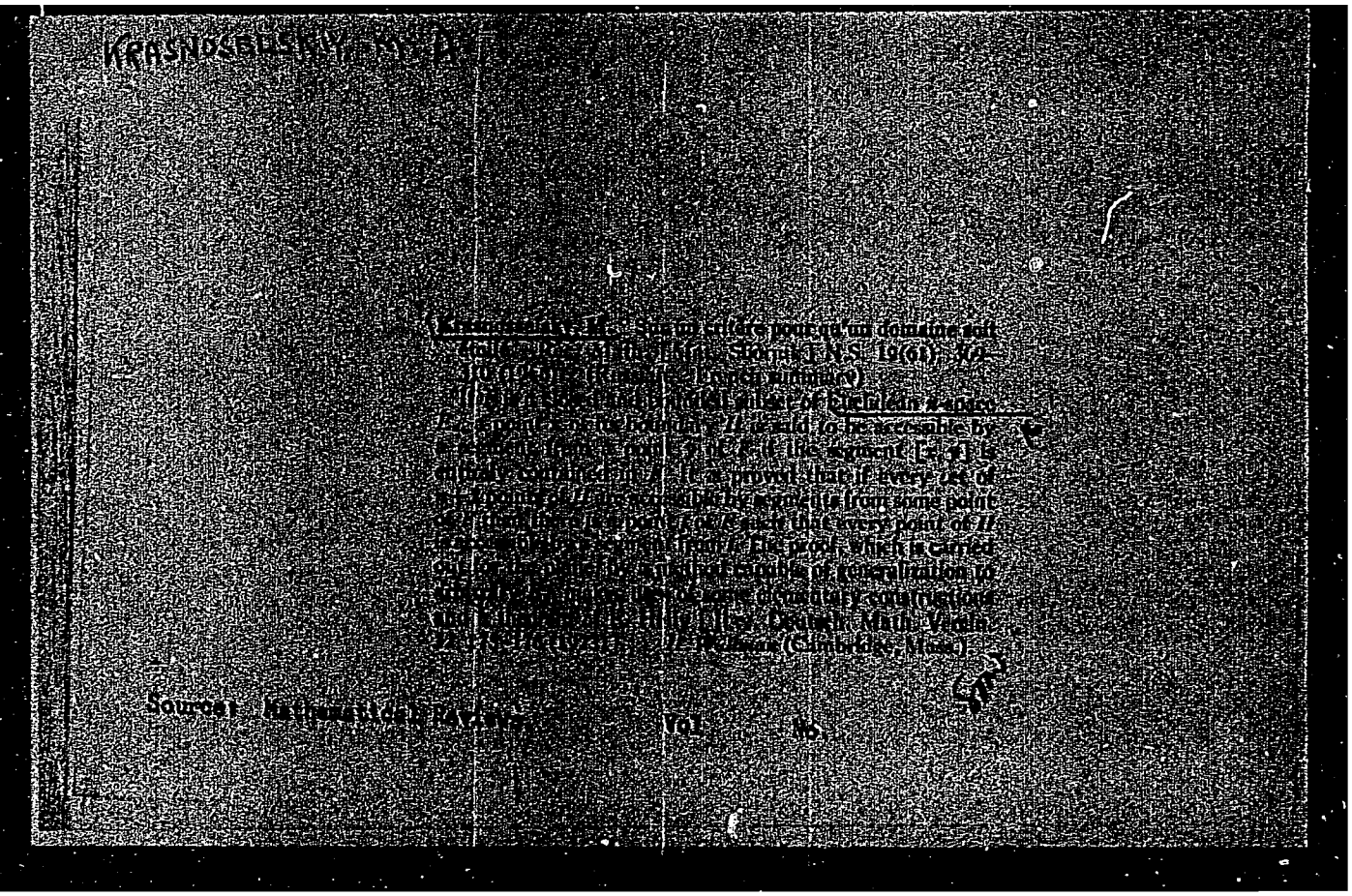
ABSTRACT: This Author's Certificate introduces a completely prefabricated construction unit with finished retaining walls and partitions, a ceiling and a floor. The device is designed for multiple-point support and frame construction. Receptacles are located along the retaining plates of the structure. In the process of joining the units together, these receptacles are filled with a bonding solution and U-shaped anchors are forced into them.

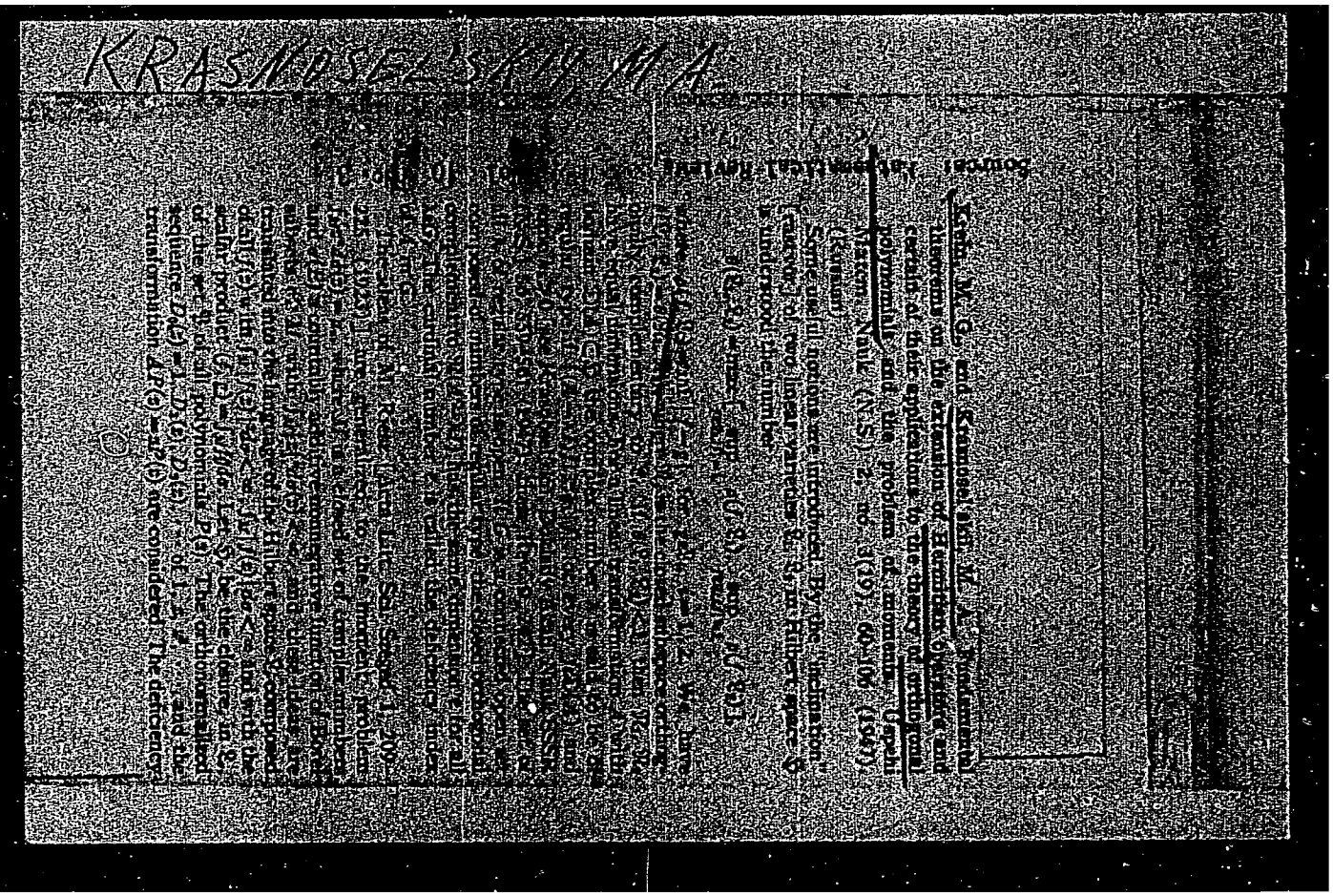
ASSOCIATION: none

Card 1/3

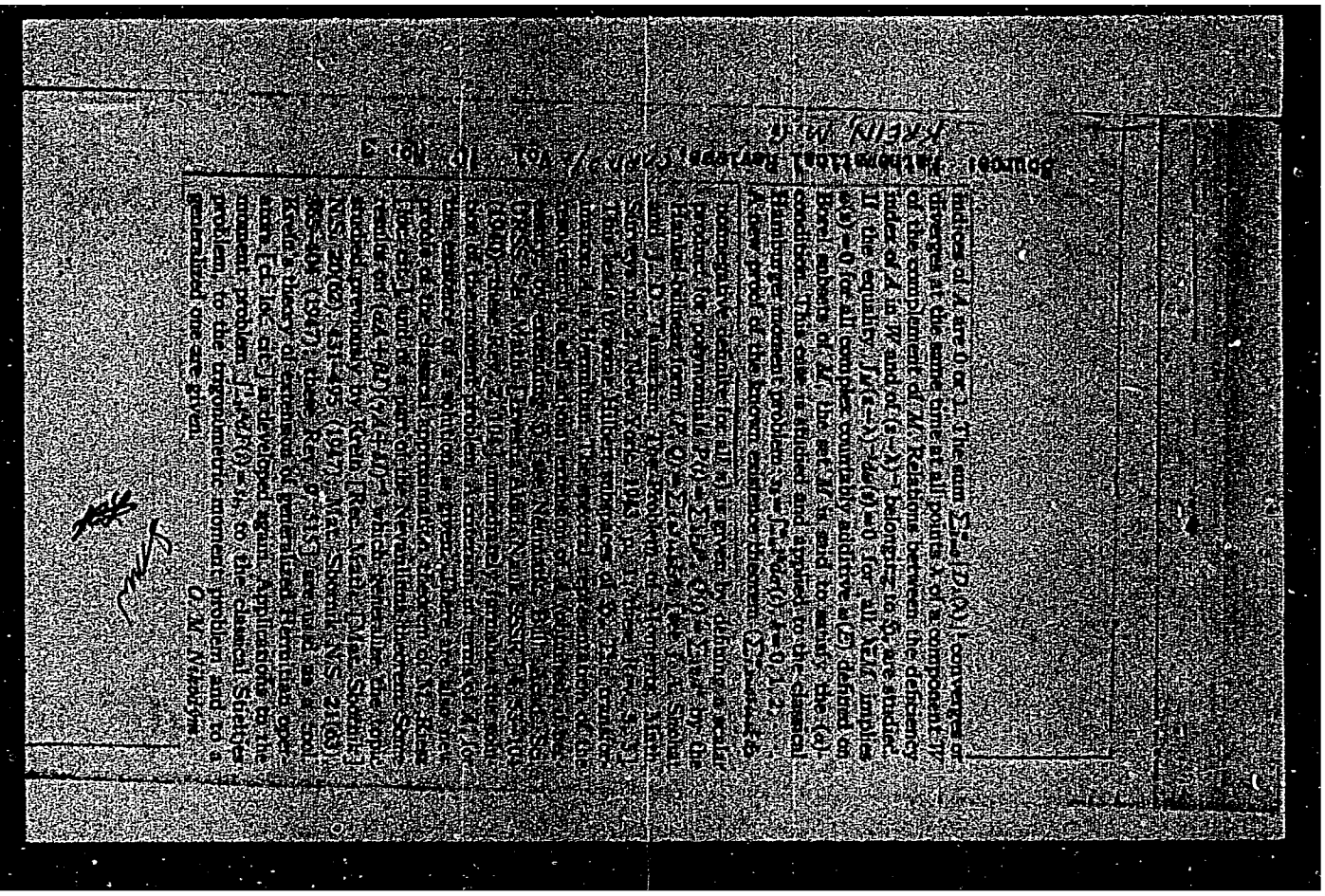








KRASNOSELSKII M A



KRASNOSEL'SKIY, M. A.

PA 58T53

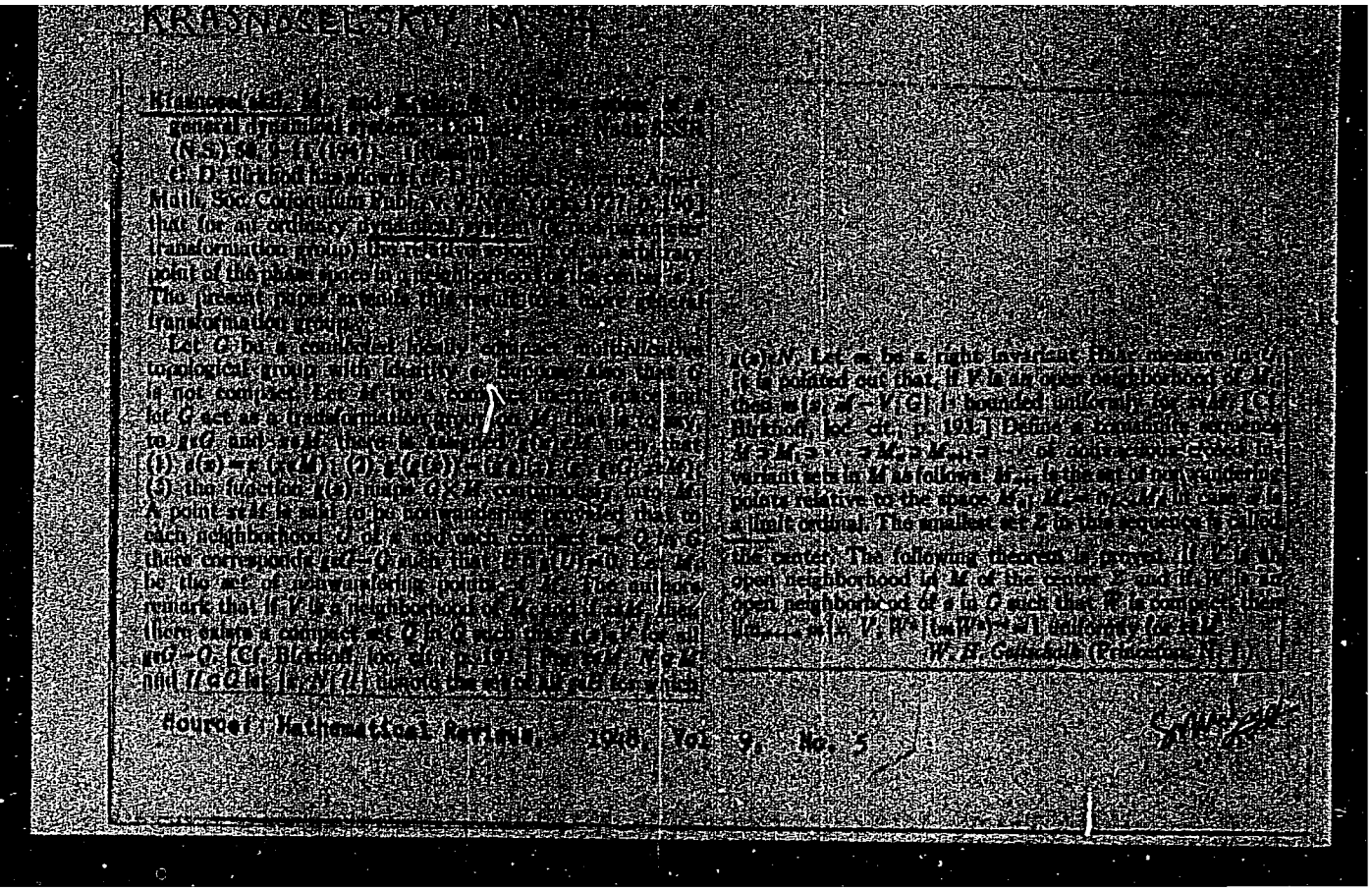
USSR/Mathematics - Operational Theory May 1947

"On Defective Numbers of Closed Operators," M. A. Krasnosel'skiy, 2 pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LVI, No 6

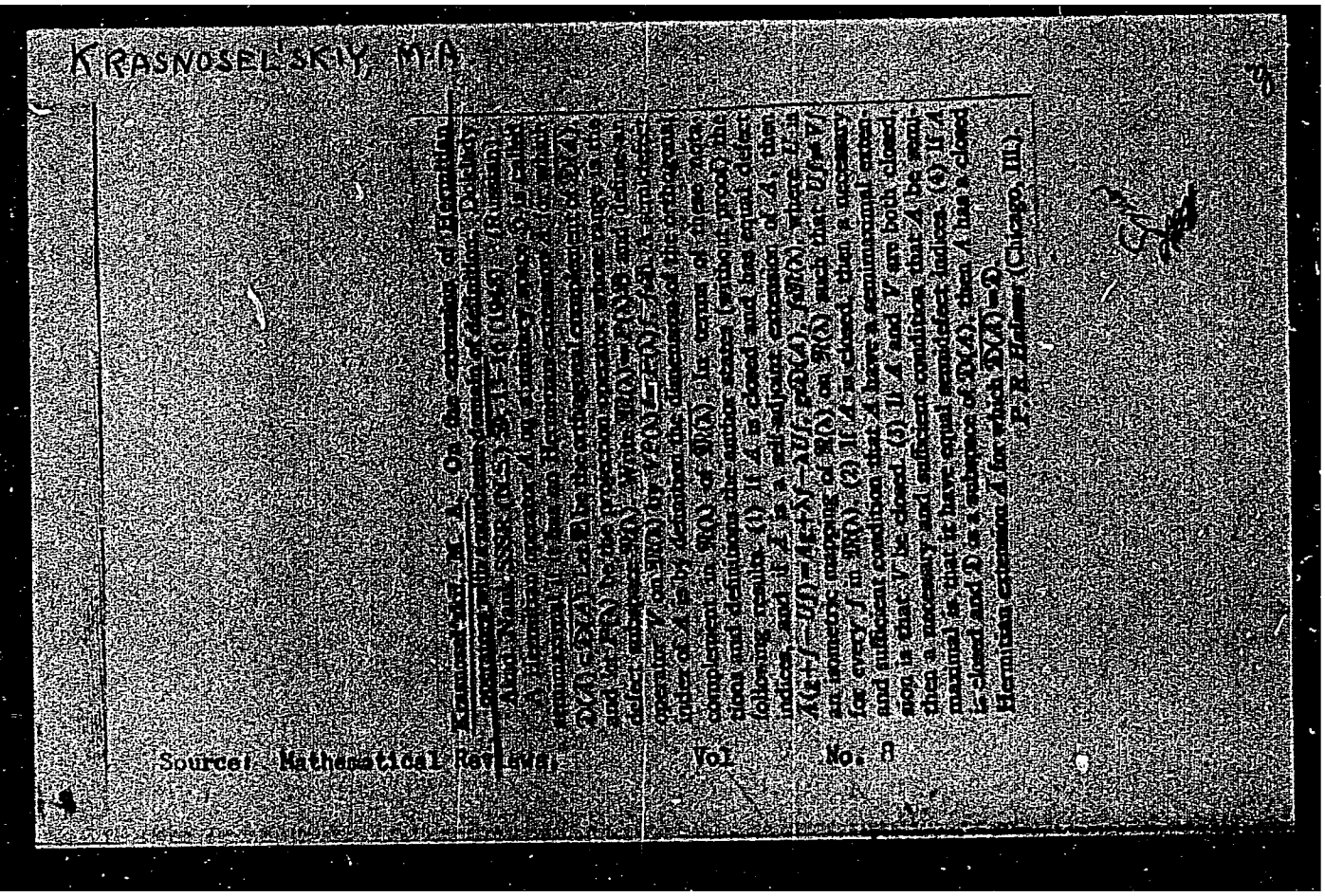
Two theorems are proved: For all $\lambda \in G$ of subspace N_λ there exists an identical dimension. Let A be a closed operator and G a region of a complex surface, which region consists of points regular for A; then dimensions of supplements N orthogonal to L_λ in H are identical for all $\lambda \in G$. Submitted by Academician A. N. Kolmogorov.

58T53



KREYN, M.G.; KRASNOSEL'SKIY, M.A.; MIL'MAN, D.P.

Defective numbers of linear operators in Banach space and certain geometrical problems. Zbir.prats' Inst.mat.AN URSR no.11:97-112 '48. (MLRA 9:9)
(Operators (Mathematics)) (Topology)



KRASNOSEL'SKIY, M.A.

Krasnosel'skiĭ, M. A. On self-adjoint extensions of Hermitian operators. Ukrain. Mat. Žurnal 1, no. 1, 21–38 (1949). (Russian)

This paper precedes a paper which has already been reviewed [same Žurnal 2, no. 2, 74–83 (1950); these Rev. 12, 13, 47] and makes use of the methods of [illegible] Krein and the author [Uspehi Matem. Nauk 2, no. 3(19), 60–106 (1947); these Rev. 10, 198] to study extensions of operators whose domains are not dense in a Hilbert space $\mathfrak{H}$. For definitions, refer to these reviews, particularly the first. It is shown that the λ-deficiency and λ-semideficiency of an operator are constant inside a connected domain of regular points, and are constant in either half-plane for a hermitian operator. The isometric operator U_λ, the λ-Cayley transform of A, and V_λ [loc. cit.] are defined. An allowable extension of U_λ is an isometric extension for which $U_\lambda f = Vf$ has only the null solution. Hermitian extensions of a hermitian A correspond to allowable extensions of U_λ; these are the extensions which coincide with V_λ for no element of $\mathfrak{H}$ save 0. For A to have a self-adjoint extension it is necessary and sufficient that its deficiencies be equal. A general self-adjoint extension $\bar{A}$ is then of the form

$$\bar{A}(z+\varphi-U\varphi)=Az+\lambda\varphi-\bar{\lambda}U\varphi$$

with $z \in D(A)$, $\varphi \in \mathfrak{N}$ and U isometric and such that $\mathfrak{D}(U)=\mathfrak{N}$, $\mathfrak{R}(U)=\mathfrak{M}$, $Uf=Vf$ for no element of $\mathfrak{H}$ save 0. The existence of a maximal extension for any hermitian operator is also proved, and it is shown that a self-adjoint extension always exists operating in a direct sum space $\mathfrak{H} \oplus \mathfrak{H}'$ with the dimension of $\mathfrak{H}'$ at least as great as the deficiencies of A.

J. L. B. Cooper (Cardiff).

Source: Mathematical Reviews, Vol. 13 No. 10

KRASNOSEL'SKIY, M.A.; KREYN, S.G.

Proof of the category theorem for a projective space. Ukr.mat.zhur. [1] no.2:99-102 '49. (MLRA 7:10)
(Topology)

1. KRASNOSEL'SHIY, M. A.

2. USSR 600

4. Operator, Hermitian

7. Hermitian operators excluding completeness, Sbor. trud. Inst. mat. AN USSR, No. 12, 1949.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

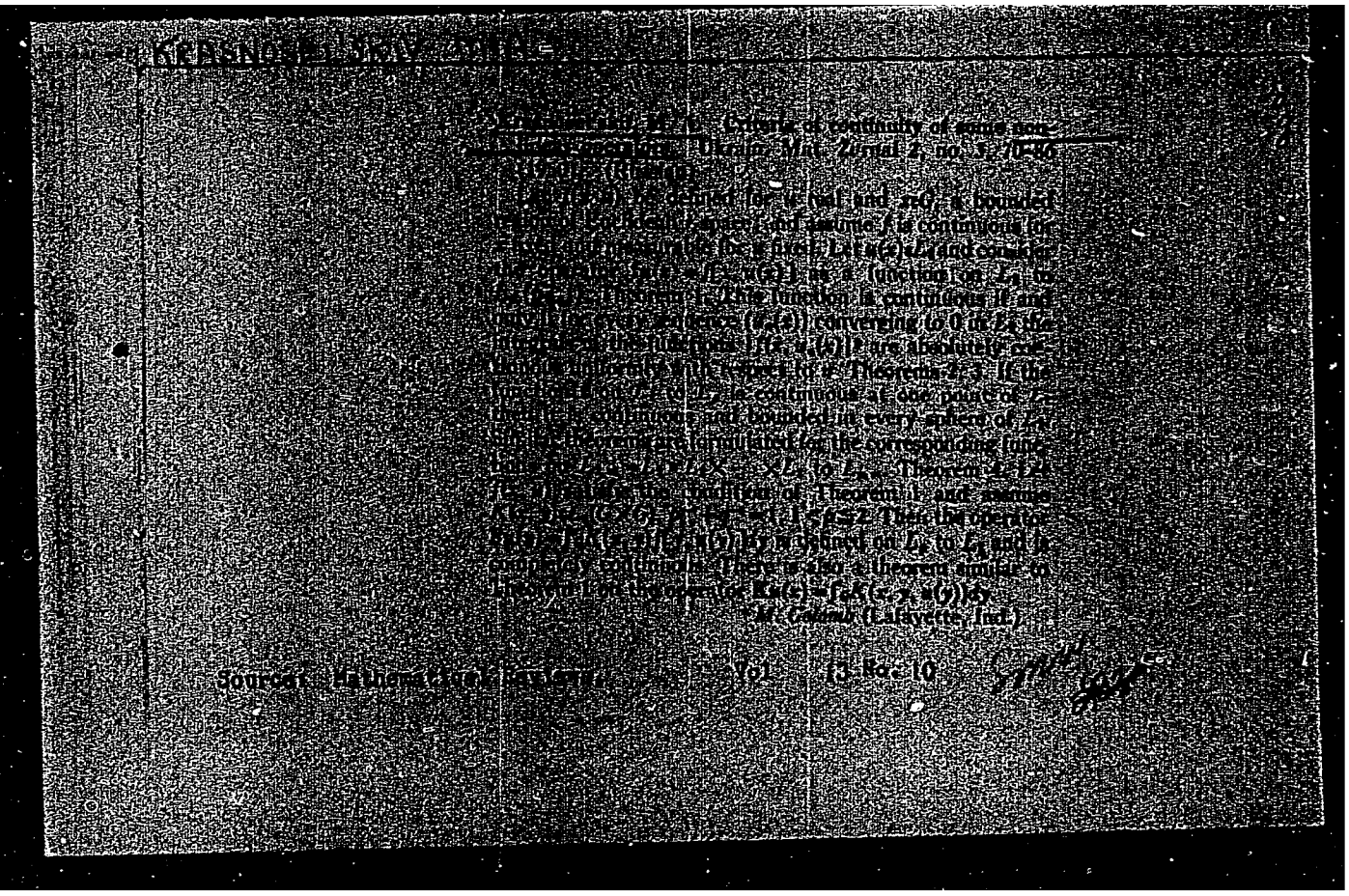
KRASNOSEL'SKIY, M.A.

Krasnosel'skii, M. A. On certain types of extensions of Hermitian operators. Ukrain. Mat. Žurnal 2, no. 2, 74–83 (1950). (Russian)

In this article an operator A in a unitary space $\mathfrak{H}$ is called hermitian if $(Af, g) = (f, Ag)$ for all f and g in its domain $\mathfrak{D}(A)$, irrespective of whether its domain is dense in $\mathfrak{H}$. An extension $\tilde{A}$ of A is called condensing if it is hermitian and $\mathfrak{D}(\tilde{A}) \subset \mathfrak{D}(\tilde{A})$ [illegible]. If A has no condensing extension it is called semi-maximal. The article gives criteria for the existence of condensing extensions. For λ with $\Im\lambda \neq 0$, the following linear sets are defined: $\mathfrak{R}_\lambda$ the range of $(A-\lambda E)$; $\mathfrak{N}_\lambda = \mathfrak{H} \ominus \mathfrak{R}_\lambda$, the λ-deficiency subspace of A; $\mathfrak{M}_\lambda$ the orthogonal projection into $\mathfrak{N}_\lambda$ of $\mathfrak{G} = \mathfrak{H} \ominus \mathfrak{D}$ and $\mathfrak{N}'_\lambda = \mathfrak{N}_\lambda \ominus \mathfrak{M}_\lambda$, called the λ-semi-deficiency subspace of A. The dimension of $\mathfrak{N}'_\lambda$ is called the λ-semideficiency of A. The following isometric operators are defined: the usual Cayley transform $U_\lambda = (A-\bar{\lambda}E)(A-\lambda E)^{-1}$ and V_λ defined in $\mathfrak{M}_\lambda$ by $V_\lambda P_{\mathfrak{N}_\lambda} h = P_{\mathfrak{N}_{\bar{\lambda}}} h$ for all h in $\mathfrak{G}$, where $P_{\mathfrak{N}}$ denotes the projector onto $\mathfrak{N}$.

The first main theorem, extending a well known theorem on extensions of hermitian operators [J. von Neumann, Math. Ann. 102, 49–131 (1929)], states that any condensing extension of a closed hermitian operator A is defined for a domain of elements of the form $f = f_0 + h - [illegible]$ [illegible] $\tilde{A}f = Af_0 + \lambda h - \bar{\lambda}$ [illegible] is a linear set such that [illegible] isometric operator with domain [illegible] and range in [illegible]. A closed hermitian operator A is semi-maximal if and only if the isometric operator $U_\lambda \oplus V_\lambda$ (the direct sum of the operators U_λ and V_λ) has all $\mathfrak{H}$ either as domain or as range; equivalently, if and only if V_λ is closed and one of the semi-deficiency indices of A (whose values as functions of λ are constant over each of the upper and lower half-planes) is zero, or again, if and only if, for some nonreal λ, [illegible]

It is shown that a closed hermitian operator has a closed semimaximal condensing extension if and only if V_λ is closed. An example demonstrates that, even if A and V_λ are closed, A may have a closed condensing extension $\tilde{A}$ for which $\tilde{V}_\lambda$ is not closed. If the space $\mathfrak{H}$ is imbedded in an extended space without altering the domain or values of A, the semi-deficiency indices and closure or nonclosure of V_λ are unaltered; hence so are the possibilities of condensing extensions. Following M. A. Naimark [Izvestiya Akad. Nauk SSSR. Ser. Mat. 4, 53–104 (1940); these Rev. 2, 104] and extension $\tilde{A}$ of A defined in an extended space is called of second species if $\mathfrak{D}(\tilde{A}) = \mathfrak{H} \cap \mathfrak{D}(\tilde{A})$. The results of the present article are used to prove the theorem that every closed hermitian operator has a self-adjoint extension of second type, and other results proved by Naimark for operators with dense domain. *J. L. B. Cooper.*



KRASNOSELSKIY, M. A.

About a fixed-point principle for continuous operators in functionary spaces, by M. A. KRASNOSELSKIY . Doklady Akad. Nauk SSSR, n. Ser. 73, 13-15 (1950).

KRASNOSEL'SKIY, M. A.

Krasnosel'skiĭ, M. A. Convergence of Galerkin's method for nonlinear equations. Doklady Akad. Nauk SSSR (N.S.) 73, 1121–1124 (1950). (Russian)

Let $L_1 \subset L_2 \subset \cdots$ be a sequence of finite-dimensional vector spaces whose union is dense in the Banach space E, and let $P_1, P_2, \ldots$ be projection operators of uniformly bounded norms such that $P_nE = L_n$. Then the equations $\varphi = P_nA\varphi$ and their solutions φ_n $(n = 1, 2, \ldots)$ are said to approximate the equation $\varphi = A\varphi$ and its solution φ_0. If the L_n are spanned by the first n elements of a basis of E, then the approximations are called Galerkin approximations by the author. The following theorems are stated without proof. If A is a completely continuous (nonlinear) operator in E and if the equation $\varphi = A\varphi$ has a unique (or at least, unique in some sphere of E) solution whose index [illegible] is different from zero, then the approximating equations, starting with a certain n_0, have solutions φ_n and these converge to φ_0. If the operator A has at the point φ_0 a Fréchet differential B for which 1 is not a characteristic value, then the approximating solutions φ_n converge to φ_0 essentially like the "Fourier" series: [illegible] viz. $\|\varphi_n - \varphi_0\| \le (1+\epsilon_n)\|P_n\varphi_0 - \varphi_0\|$, where $\lim \epsilon_n = 0$. If E is a real Hilbert space and A is a completely continuous linear operator which has the simple characteristic value $\lambda_0 > 0$ and corresponding characteristic elements φ_0 for which $\|\varphi_0\| = \lambda_0$, then φ_0 may be considered as a solution of the nonlinear equation $\varphi = \|\varphi\|A\varphi$, and the approximating equations become $\varphi = P_n\|\varphi\|A\varphi$. The above results then apply to the convergence of the approximating solutions φ_n to φ_0 and of the numbers $\|\varphi_n\|$ to λ_0. *M. Golomb.*

Source: Mathematical Reviews, Vol. 12, No. 3

Math Inst [illegible] Sci Ukr SSR

KRASNOSEL'SKIY, M. A.

PA 174T24

USSR/Mathematics - Nonlinear Equations 1 Sep 50
Topology

"Topological Method in the Problem of the Eigenfunctions of Nonlinear Operators," M. A. Krasnosel'skiy Math Inst, Acad Sci Ukrainian SSR

"Dok Ak Nauk SSSR" Vol LXXIV, No 1, pp 5-7

Establishes 3 theorems governing subject method, whose topological expression greatly simplifies statement of existence and assumptions. Submitted 23 Jun 50 by Acad A. N. Kolmogorov.

174T24

KRASNOSEL'SKIY, M. A.

PA 174T28

USSR/Mathematics - Nonlinear Operators Eigenfunctions

11 Sep 50

"Eigenfunctions of Nonlinear Operators Asymptotically Close to Linear Ones," M. A. Krasnosel'skiy, Inst Math, Acad Sci Ukrainian SSR

"Dok Ak Nauk SSSR" Vol LXXIV, No 2, pp 177-179

Investigation of set of eigenvectors with max norm. Submitted 23 Jun 50 by Acad A. N. Kolmogorov.

174T28

KRASNOSEL'SKIY, M. O.

Mathematical Reviews
May 1954
Analysis

10-7-54

(3)

Krasnosel'skiĭ, M. O. Vector fields symmetric with respect to a subspace. Dopovidi Akad. Nauk Ukrain. RSR 1951, 8–11 (1951). (Ukrainian. Russian summary)

Let the Banach space E be the Cartesian product of the Banach spaces E_1, E_2. The point $z^* = (x, -y) \in E$, $x \in E_1$, $y \in E_2$ is said to be symmetric to $z = (x, y)$ relative to E_1. The main result of the paper is the following theorem. Let Φ be a completely continuous vector field on some sphere $S \subset E$ such that neither Φ nor its projection $P_1\Phi$ onto E_1 vanishes anywhere. Assume that in no point $z \in S$, Φz^* is parallel to the vector that is symmetric to Φz relative to E_2. Then the index of Φ on S differs from that of $P_1\Phi$ on $S \cap E_1$ by an even integer. This theorem is used to establish the existence of a solution for a certain pair of nonlinear integral equations in two unknown functions. The proofs are said to be based on the results of a paper by the author and M. G. Krein [Ukrain. Mat. Žurnal 1, no. 2, 99–102 (1949); these Rev. 14, 72] that was not accessible to the reviewer.

M. Golomb (Lafayette, Ind.).

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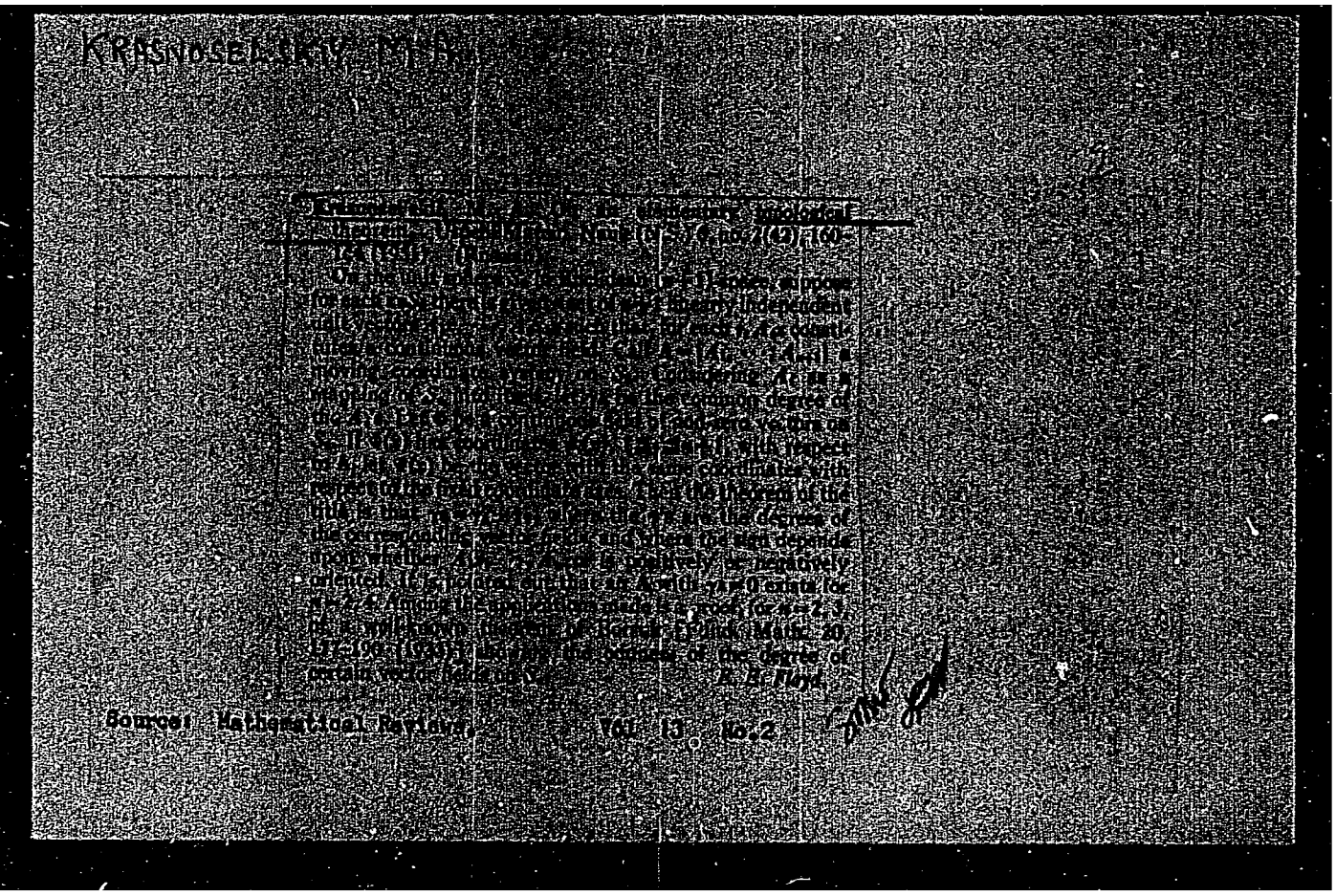
KRASNOSEL'SKIY, M.A.

Mathematical Reviews
Vol. 14 No. 11
Dec. 1953
Topology

Krasnosel'skiĭ, M. A. On the theory of completely continuous vector fields. Ukrain. Mat. Zurnal 3, 174-183 (1951). (Russian)

Let F be a completely continuous operator defined on the sphere S, $\|x\|=\rho$, of some Banach space E, and let Φ be the vector field $Fx-x$, $x \in S$, which is assumed to contain no zero vector. Then the characteristic $\chi(\Phi, S)$ of Φ on S is defined, generalizing the definition used for vector fields on finite-dimensional spheres. The author proves that two such vector fields Φ, Ψ are homotopic if and only if $\chi(\Phi, S)=\chi(\Psi, S)$. He mentions that this was proved by E. Rothe for the special case where E is a Hilbert space, but the latter actually proved it for the general case of a vector field defined on the boundary of a convex set in a strictly convex linear topological space [Iowa State Coll. J. Sci. 13, 373-390 (1939); these Rev. 1, 108]. In the second part of the paper the author extends a theorem proved by Borsuk and Lusternik-Schnirelmann for the finite-dimensional case to E: If the vectors of the field Φ are not parallel at diametrically opposite points of S then $\chi(\Phi, S)$ is odd. It follows that under these conditions if F is defined and completely continuous for $\|x\| \leq \rho$, F has a fixed point in the interior of S. With this fixed-point principle the author proves that if A is defined and completely continuous for $\|x\| \leq \rho$, and B is a linear completely continuous operator such that $\|Ax-\lambda Bx\| < \|x-\lambda Bx\|$ for $x \in S$ then $Ax=x$ has a solution x_0, $\|x_0\| < \rho$. It seems to the reviewer that the conditions on B are unnecessarily restrictive. The same result follows if $\|Ax+Bx\| < \|x+Bx\|$, $x \in S$, for any operator B for which $B(-x)=-Bx$, $x \in S$. M. Golomb (Lafayette, Ind.)



KRASNOSELSKY, M.A.

Source: Mathematical Reviews, Vol. 13, No.2

KRASNOSEL'SKIY, M. A.

"Application of Topology to Nonlinear Functional Analysis," Usp. Mat. Nauk Vol. 6 No. 4 (44), pp 193-220, 1951.

U-1635, 16 Jan 52